Agricultural Experiment Station
Cooperative Extension

37860 West Smith-Enke Road
Maricopa, Arizona 85138
(520) 568-2273
FAX: (520) 568-2556

Aluminum Phosphide Use in Arizona and Response to EPA's Amended Proposed Interim Registration Review

Prepared by Alfred J. Fournier
Comments submitted by the Arizona Pest Management Center,
University of Arizona

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Docket ID: EPA-HQ-OPP-2013-0081
Re: EPA's Amended Proposed Interim Registration Review for Phosphine, Aluminum Phosphide, and Magnesium Phosphide, Case Numbers 0025, 0645, and 7608

To Whom it may concern:

The EPA is seeking public comments in response its Amended Proposed Interim Decision for phosphine, aluminum phosphide, and magnesium phosphide. These fumigants are registered for use in stored grain and for treatment of vehicles and vessels, among other sites for control of insect and rodent pests. Aluminum phosphide and magnesium phosphide products are also registered for in-burrow rodent control. **Our comments focus exclusively on aluminum phosphide uses in Arizona agriculture.**

Aluminum Phosphide Use in Arizona Agriculture

Rodent Treatments in Burrows

Pocket gophers are widespread throughout Arizona and can be very destructive and costly in a number of crops. Ground squirrels occur in more limited geographic areas (for example in central Arizona) but can be numerous can challenging to control where they occur. Prairie dogs occur in parts of northern Arizona (north of I-40), where they can be a challenge for ranchers who raise sheep or other livestock. In field crops as well as in pasture and rangelands, rodent burrowing activities damage fields and crops and can create serious hazards for both humans and livestock. People and horses tripping on rodent burrows or holes can be badly injured. Rodents can also cause costly damage to farm equipment and to irrigation systems, including canals and drip irrigation systems. Direct feeding on certain crops, such as corn, can also be an issue.

Although these rodents can impact many crops (corn, grain, sorghum), experienced Pest Control Advisors (licensed PCAs) indicate that pocket gophers and ground squirrels are particularly problematic in alfalfa. Alfalfa is a perennial crop grown for 3 to 5 years between plowing and

disturbance to the soil, which makes it easier for rodents to establish extensive burrows in the fields. This can be damaging to equipment. For example, a swather passing through to cut alfalfa can have blades dulled or damaged by the raised burrows. Damage to bailers and other equipment also occurs.

Aluminum phosphide products are an effective treatment for the control of pocket gophers, ground squirrels and other rodent species. These products must be handled with care. Users and purchasers of these fumigants, which are Restricted Use Products, are required to hold a fumigant license, which requires training, testing and continuing education credits to maintain. Therefore, applicators are knowledgeable, able to identify rodent species and to safely handle the products. Pest Control Advisors and product sellers I spoke with indicated the importance of careful handling and storage of these products, but also emphasized how useful and effective they are, and critically needed for rodent management in agricultural operations.

Application methods. A pellet product (e.g., Weevil-Cide Pellets) is placed in identified burrows. Soil is either pre-dampened or water is added following application to activate the fumigant, then the entrance hole is covered over with soil. One Pest Control Advisor who deals with severe gopher infestations in central and southeastern Arizona uses a "Verminator," special farm equipment with a tube that delivers product directly 6 to 10 inches below the soil. This is more efficient than by-hand applications for badly infested fields. This PCA emphasized that pocket gophers and ground squirrels are "a huge problem" in Arizona agriculture.

<u>Other Uses</u>
Aluminum phosphide is also used to fumigate stored grain for control of weevils, other beetles and insect pests, and mice. It has also been used to treat shipping containers, prior to shipment of farm equipment overseas. The same product (Weevil-Cide pellet) is used, although the application process is a bit different. The product is said to be very effective for these uses.

Proposed Label Mitigations

Our comments pertain only to the use of aluminum phosphide, as we did not identify uses of phosphine or magnesium phosphide among agricultural stakeholders in Arizona.

1. **Restricting use to target species only.** Pest Control Advisors and product sellers reviewed the proposed list of target species and verified that it is inclusive enough to cover pests of concern in their operations.
2. **Pre-application burrow check.** Because applicators using aluminum phosphide require a fumigant license, they are knowledgeable about rodent identification and routinely verify presence of the target species and locations of burrows and burrow exits prior to an application. The proposed non-target language was not seen as problematic. However, one commenter raised potential liability concerns for rare or unexpected situations. For example, coyotes are common and sometimes forage for pocket gophers in the burrows. If a coyote decided to do this prior to or during a fumigation treatment, but after the pre-application check, this could pose a liability issue for growers or applicators. Perhaps

unlikely, but we would welcome EPA's suggestions on how such occurrences would be interpreted based on proposed label language, from an enforcement standpoint.

3. **Conservation buffers.** As noted in comments submitted to EPA by the Arizona Farm Bureau Federation, it is difficult to determine how many agricultural areas would be impacted by the 100 ft. conservation buffers. However, growers with fields near conservation areas would be at increased risk of economic harm due to the field and crop damage noted above if they were not able to use aluminum phosphide or another effective rodenticide in that area.

Who We Are

The Arizona Pest Management Center is host to the University of Arizona's expert IPM scientists including Ph.D. entomologists, weed scientists and plant pathologists with expertise in the strategic tactical use of pesticides within IPM programs that protect economic, environmental and human health interests of stakeholders and the society at large.

Dr. Al Fournier is Associate Director of the APMC / Associate Specialist in Entomology, holds a Ph.D. in Entomology, and has expertise in evaluating adoption and impact of integrated pest management and associated technologies. He serves as an Integrated Pest Management Network Coordinator through the Western IPM Center Signature Program, representing stakeholders in the desert Southwest states in EPA registration reviews.

These comments are the independent assessment of the author and the Arizona Pest Management Center as part of our role to contribute federal comments on issues of pest management importance and do not imply endorsement by the University of Arizona or USDA of any products, services, or organizations mentioned, shown, or indirectly implied in this document.